

Book Reviews

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The Chemical Prevention of Cardiac Necroses

Hans Selye

New York, Ronald Press Company, 1958, 235 pp.

The animal organism responds to a variety of damaging agents in a limited number of ways, and as a result, many common pathologic entities have no single, specific "cause." Medicine is indebted to Hans Selye for his part in demonstrating this. In the present volume, he sets forth his evidence that the necrosis of cardiac muscle may be a "nonspecific" pathologic entity, and that it may be the outcome of many types of assault. One cannot deny that his observations are timely, for heart disease, with or without myocardial infarction, is the leading cause of death in the United States, the most frequent killer of adult men, and the scourge of twentieth-century industrial civilization.

It is a common clinical belief that the "coronary death" in arteriosclerotic heart disease is produced by myocardial infarcts (cardiac necroses) which result from the occlusion of coronary arteries by blood clots or arteriosclerotic

plaques. Selye suggests that this may not be the whole story. In laboratory animals, necrosis of cardiac muscle is a frequent consequence of infections, trauma, hypersensitivity, a variety of toxic states, excessive muscular activity, and enforced restraint. Selye presents experimental evidence that such necrosis is readily produced in Sprague-Dawley rats treated with adrenal steroids—and especially with 2 alpha-methyl-9 alpha-chlorocortisol (a synthetic steroid hormone which has both salt-retaining and anti-inflammatory actions)—if rats so treated are also treated with sodium salts, and especially with NaH_2PO_4 . The occurrence of necroses is enhanced by hypoxia, by increased cardiac work, or by damage to the organism from many causes (i.e., stress). It is diminished by hypotension and by treatment with MgCl_2 or KCl. Selye suggests that it may be the result of metabolic changes produced in muscle fibers by the combined action of steroids and electrolytes.

One may object, with some validity, that Selye's chemical assault upon the Sprague-Dawley rat is far from reproducing many known features of the pathogenesis and morphology of

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the human coronary occlusion and myocardial infarction. When he reminds us that myocardial infarcts may occur in the absence of any coronary occlusion, we may remind him in turn that a considerable proportion of sudden "coronary" deaths occur in people who have coronary sclerosis, but who have no infarcts at all—no detectable evidence of cardiac necrosis whatever.

Nevertheless, Selye's hypotheses are not to be dismissed lightly. The academic woods are strewn with the dead predictions of those who, in the past, have accused him of leaping beyond the evidence. The classic ideas about the pathogenesis of arteriosclerotic heart disease are undergoing an extensive reappraisal. It might well be true that damage to human heart muscle can be the outcome of metabolic changes within the fibers enhanced by steroids, especially when a myocardium has a diminished blood supply and is working under the added load of hypertension. It may also be true that the physiologic mobilization associated with tension and striving may increase the natural production of potentially damaging steroids, and thereby play an important role in human myocardial infarction; but at present there is no evidence for this.

The book itself is recommended reading only for those who wish to examine the hypotheses, hear the argument, and review the evidence critically. Because of its long tables of data, its profusion of abbreviations and technical terms, and its monotonous cataloguing of the results of others, the general reader will not find it easy to maintain his interest.

LAWRENCE E. HINKLE, JR.

Introductory Lectures in Medical Hypnosis

Margaretta K. Bowers, M.D. (Editor)

New York, Institute for Research in Hypnosis, 1958, 89 pp. \$2.50

Medicine is a cautious and conservative discipline, and it is in this tradition that the group of authors who have contributed to this monograph have written.

There are chapters on clinical and experimental hypnosis in contemporary behavioral sciences, on the use of hypnosis in the treatment of medical and surgical conditions, the elementary principles of trance induction, the

control of pain and symptom management, hypnosis and anesthesia, dental applications in hypnosis, the hypnotic relationship, the termination of the hypnotic state, hypnosis as a physiological state, and a final chapter on the history of hypnosis. This brief book is very informative, and is a welcome addition to the literature on hypnosis.

LAZARUS SECUNDA

Hypnosis in Anesthesiology

Milton J. Marmer, M.D.

Springfield, Ill., Chas. C. Thomas, 1959, 150 pp. \$6.75

For many years it has been known that there is more to anesthesia than the administration of a chemical agent. The use of hypnosis, however, has added a new dimension to the psychological aspects of anesthesiology.

This monograph attempts to help a physician incorporate hypnotic techniques into the practice of anesthesiology. The historical background is covered, there are chapters on the psychophysiology of hypnosis and the psychologic aspects of anesthesiology, and a great deal of space is devoted to methods of hypnotic induction and, thereafter, to techniques of producing anesthesia. There are also chapters on the uses of hypnosis in anesthesiology and in the therapy of pain states, and a chapter on hypnosis in pediatric anesthesia that is particularly well done.

A complete coverage of the practical uses of hypnosis in anesthesiology is given, and as such, it can be relied upon.

LAZARUS SECUNDA

Current Trends in the Description and Analysis of Behavior

Robert Glaser et al.

Pittsburgh, University of Pittsburgh Press, 1958, 242 pp., \$4.00

The book published under this promising title is a selection of papers from two symposia held at the University of Pittsburgh. It suffers from the inevitable defects of any such publication, though it presents more virtues than many others. The principal defect is that the series is not exhaustive of the many or even the